

The Claims

What is claimed is:

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1. An implant comprising a body having two outer annular members and at least one inner annular member, wherein at least one of the annular members is formed from bone and the annular members are coupled together to define a central chamber.
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2. The implant of claim 1, wherein each annular member has at least one surface that is press-fit with the surface of another annular member.
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3. The implant of claim 2, wherein the outside diameter of the outer annular members is smaller than the outside diameter of the at least one inner annular member.
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4. The implant of claim 2, wherein the implant is symmetrical about an innermost annular member, the diameter of the implant progressively decreasing from the innermost annular member to each outer annular member.
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5. The implant of claim 2, wherein the central chamber is packed with at least one of bone material and bone inducing substances.
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6. The implant of claim 2, wherein at least one annular member is formed of cancellous bone and at least one annular member is formed of cortical bone.
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7. The implant of claim 2, wherein the annular member bones comprise at least one of autograft, allograft, and xenograft bone tissue.
8. The implant of claim 7, wherein the bone tissue of at least one bone is partially demineralized or demineralized.
9. The implant of claim 2, wherein a plurality of annular members are coupled together with at least one fastener.

10. The implant of claim 9, wherein the at least one fastener is selected from a screw, key, pin, peg, rivet, cotter, nail, spike, bolt, stud, staple, boss, clamp, clip, dowel, stake, hook, anchor, tie, band, crimp, and wedge.

5 11. The implant of claim 2, wherein a plurality of annular members are bonded together with a bonding agent.

12. The implant of claim 2, wherein at least one of the annular members is at least partially dehydrated to fit against a surrounding mating surface.

10 13. The implant of claim 2, wherein at least one of the annular members is at least partially dehydrated to mate with another annular member.

15 14. The implant of claim 1, wherein contacting surfaces of adjacent annular members are machined surfaces so that the contour of the contacting surfaces is about the same.

20 15. The implant of claim 14, wherein the machined surfaces permit press-fitting of one sheath into another sheath.

16. The implant of claim 1, wherein the annular member bones are selected from a femur, tibia, humerus, fibula, ulna, and radius.

25 17. The implant of claim 1, wherein the annular members are non-circular.

18. The implant of claim 17, wherein the annular members are generally oblong.

30 19. The implant of claim 1, further comprising at least one supplemental annular member coupled to at least one of the annular members formed from bone, wherein the at least one supplemental annular member is formed of a material selected from metals, alloys, ceramics, polymers, and composites.

35 20. The implant of claim 1, wherein at least one annular member further comprises alignment indicia.

21. The implant of claim 1, wherein adjacent surfaces of at least two annular members do not completely contact each other.

Sub A1

5 22. An implant comprising a body having at least two ring-shaped members formed from bone that are coupled together to define a central chamber.

23. The implant of claim 22, wherein the ring-shaped members have surfaces that mate and press-fit together.

10 24. The implant of claim 22, further comprising a pair of members each being coupled to a different outermost ring, wherein the chamber is closed on all sides.

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